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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,239	07/22/2003	Yong Min Luo		8619
25859	7590	05/09/2006		
WEI TE CHUNG FOXCONN INTERNATIONAL, INC. 1650 MEMOREX DRIVE SANTA CLARA, CA 95050			EXAMINER PATEL, RITA RAMESH	
			ART UNIT 1746	PAPER NUMBER

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,239	LUO, YONG MIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Rita R. Patel	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments and Amendments***

This Office Action is responsive to the amendment filed on 3/6/06. Claims 11-16 have been canceled. Claims 1 and 17 have been amended. Claims 1-10 and 17-18 are pending. Applicant's arguments have been considered, but are not persuasive. Thus, claims 1-10, 17 and 18 are finally rejected for reasons of record and for reasons necessitated by Applicant's arguments.

In response to Applicant's arguments that Aoki and La Pan do not disclose that when the cover is rotated down to cover the main body the cleaning process starts and after the cleaning process is completed the supporting trays are transferred to the shelves of the drying cabinet and the drying process starts. It would have been obvious to one of ordinary skill in the art at the time of the invention to integrate Aoki and La Pan as described herein such that upon completion of the cleaning process, the trays are transferred to the drying cabinet and the drying process begins. Likewise, as presented in Applicant's Specification, "after cleaning process completed, the user transfers the supporting trays to the shelves of the drying cabinet" (Paragraph [0023]), Aoki and La Pan are structurally able to have a user perform similar tray transfer action; this is an intended use of the apparatus which may be completed by the invention taught by Aoki and La Pan.

In response to Applicant's argument that the combination of Aoki and La Pan is only a hindsight, as the two prior art references related to two fields of endeavor which are irrelevant to each other once can no determine obviousness by using the claims as

Art Unit: 1746

a guide to collect prior arts necessary to reject the claims, the Office maintains that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine features of Aoki and La Pan to combine a machine able to clean trays and a machine capable of drying trays to fulfill common cleaning functions, known in the art. Cleaning trays and subsequently drying them are known wanted achievable functions for tray cleaning apparatuses. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Moreover, in response to applicant's argument that Aoki and La Pan are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6-9, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (US Patent No. 6,041,799) and further in view of La Pan (US Patent No. 3,681,856).

Aoki teaches a microwave-excitation cleaning and rinsing apparatus for a substrate holder 8 for mounting wafers 9 thereon (Fig. 1). Albeit Aoki shows cleaning for a substrate holder, said apparatus may similarly be used for a supporting tray for a printed circuit board (PCB); this relies on the intended use of the apparatus as the apparatus is structurally capable of functioning under Applicant's claims. Aoki further discloses a main body with a shield cover 6, an inlet 2a for supplying pure water, an outlet 2b for draining liquid, a substrate holder 8, and a microwave oscillator 3 for generating microwaves which are supplied to the pure water or cleaning chemical solution within the cell 1 (col. 3, lines 30-32; Fig. 1). Also, Aoki teaches a control process for the microwave transmitting magnetron whereby the magnetron is turned ON or OFF to fulfill the cleaning expectations (col. 3, lines 60-67).

Aoki lacks the teaching of a drying unit connectively attached to said cleaning and rinsing apparatus. La Pan teaches a product dryer for drying trays wherein said dryer comprises of a holding space for the tray 54, control valves 78, 82, 92, blower

intake 33, air inlet 63, heaters 41, 64, exhaust fan 69, and exhaust pipes 67. See Figures 1-3. In Figure 1 La Pan illustrates the use of multiple heaters 64 located within the apparatus, therein connectively attached to a blower intake 33. The blower intake fan 33 is located on the side outer cover of the apparatus, whereby on the upper outer cover "the units 43 and 47 are shown as controlled by piston-cylinder units 75 and 76, respectively, in an air circuit 77 controlled by a valve 78 operable to deliver air to either side of the pistons of the units 75 and 76 and simultaneously vent air from the opposite side thereof" (col. 4, lines 61-65). La Pan shows the location of the exhaust fan 69 in Figure 2 in the rear of said drying apparatus; in addition, the "exhaust pipes 67 extending as pre-heaters through the air inlet 63 and into the exhaust stack 68 whose upper end is in communication with the exhaust fan 69 " (col. 4, lines 11-15). In Figure 1 La Pan shows a wall extension 41, which can inherently be used to maintain heat within the apparatus. The wall extension illustrated by La Pan forms a closed boundary around the heater thereby maintaining the heat expended specifically by the heater. This reads on Applicant's claim wherein an adiabatic net is provided about the heater to prevent the user from touching the heaters and getting hurt; the wall shown by La Pan is adiabatic because it aims to eliminate heat transfer from the heaters to the rest of the machine, thus the rest of the apparatus remains non-heated, preventing the user from touching the heaters and getting hurt. It would be obvious to one of ordinary skill in the art at the time of the invention to integrate the apparatus teachings of Aoki and La Pan to fulfill drying expectations when cleaning and rinsing a tray since it has been held that forming in one piece an article which has formerly been formed in two pieces and put

together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki and La Pan as applied to claim 1 above, and further in view of Chen (US Patent No. 5,068,030).

Aoki and La Pan fail to teach the use of an electromagnetic valve, as well as a sensor within the cleaning apparatus used to sense the water level. Chen teaches a water filtering apparatus wherein a water supply stream provides water to the body of the system and is thereafter cleansed using a microwave oscillator (Abstract). Although Chen does not utilize said apparatus for cleaning trays, the boxed-shaped storage tank 5 of the system is capable of containing trays within as it cleanses. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. MPEP 7.37.09. The intake valve is actuated by the displacement of a float 53, located inside the tank 5, used to measure the height of the water within the system. Chen further discloses an "electromagnetic valve 52 for controlling the flow of water to the tank 5 is disposed in the fluid line between the tube 42 and the micro switch 54" (col. 3, lines 1-4). Chen fails to teach the use of an electromagnetic valve on the outlet of said apparatus, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to attach an electromagnetic valve on the outlet stream of the system as done on the inlet

Art Unit: 1746

supply stream, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Nevertheless, Chen teaches the use of faucet-like hand valves 42, 57 connected to the outlet stream in Figure 2 for controlling flow of liquid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Chen with Aoki and La Pan in order to provide a tray cleaning/drying apparatus with a controlled sensor and valve system for monitoring water intake/outtake and the water level within the body of the apparatus.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki and La Pan as applied to claim 1 above, and further in view of Dobson (US Patent No. 5,372,153).

Aoki and La Pan fail to teach the use of caster wheels attachedly connectedly to the bottom of said cleaning/drying apparatus. However, Dobson teaches the use of said caster wheels on a pallet cleaner. Although Dobson does not teach the use of said caster wheels on a tray cleaning device, the pallet cleaning device is structurally capable of holding said trays for the purpose of cleaning them; it is the intended use of the apparatus shown by Dobson to utilize the apparatus for cleaning trays, thereby meeting Applicant's claims. In Figure 1 of Dobson, two pairs of caster wheels 26 are illustrated. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of caster wheels as shown by Dobson to the tray cleaning/drying apparatus taught by Aoki and La Pan to achieve expectations of portability and means for convenient mobility of the machine.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RRP



**MICHAEL BARR**  
SUPERVISORY PATENT EXAMINER